

Nursery Pest Newsletter

Plant Protection and Weed Control Kansas Department of Agriculture P.O. Box 19282, Forbes Field, Building 282 Topeka, Kansas 66619

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Fall 2012

Emerald Ash Borer Update *Jeff Vogel, Program Manager*

Emerald ash borer, a pest of ash trees that is native to Asia, was first discovered in North America near Detroit, Michigan in the summer of 2002. Since that time, the pest has killed millions of ash trees. Emerald ash borer has been found in the following states: Ohio (2003); Indiana (2004); Illinois; Maryland (2006); Pennsylvania; West Virginia (2007); Missouri; Virginia; Wisconsin (2008); Kentucky; Minnesota; New York (2009); Iowa; Tennessee (2010); Connecticut; Kansas; and Massachusetts (2012).

The first-ever presence of emerald ash borer in Kansas was confirmed in Wyandotte County. The discovery was made by Kansas Department of Agriculture and United States Department of Agriculture (USDA) staff during a survey being conducted as a result of the July 20, 2012 confirmation of emerald ash borer in Platte County, Missouri. During a visual survey, the staff identified a tree that showed symptoms of the emerald ash borer. They removed a portion of the tree and sent it to a USDA lab in Michigan for further analysis. Regulatory officials at USDA's Animal and Plant Health Inspection Service's Plant Protection and Quarantine (USDA-APHIS-PPQ) division removed larva from the sample and confirmed the presence of emerald ash borer on August 29, 2012.

Immediately after confirmation by USDA, Kansas implemented an emergency intrastate quarantine for Wyandotte County to prevent further spread of emerald ash borer in Kansas. The quarantine applies to any corporation, company, society, association, partnership, governmental agency, and any individual or combination of individuals. It prohibits movement of regulated items from the quarantined area, except under specific conditions established in the quarantine order.

Regulated items under quarantine include the following:

- The emerald ash borer, (Agrilus planipennis [Coleoptera: Buprestidae]), in any living stage of development;
- Firewood of all hardwood (non-coniferous) species;

- Nursery stock of the genus *Fraxinus* (Ash);
- Green lumber of the genus *Fraxinus* (Ash);
- Other material living, dead, cut, or fallen, including logs, stumps, roots, branches, and composted and uncomposted chips of the genus *Fraxinus* (Ash);
- Any other article, product, or means of conveyance that an inspector determines presents a risk of spreading emerald ash borer and notifies the person in possession of the article, product, or means of conveyance that it is subject to the restrictions of the regulations.

The quarantine, effective as of August 29, will remain in effect for a period of 90 days or until rescinded or modified by order of Kansas Secretary of Agriculture Dale Rodman.

KDA in conjunction with USDA, Kansas Forest Service, K-State Research and Extension, we have been conducting visual surveys of ash trees in a 5 mile radius of both the Kansas and Missouri finds.

If Kansans think any of their trees may have the pest, they should notify the Kansas Department of Agriculture (KDA) immediately at (785) 862-2180 or at ppwc@kda.ks.gov. Email photos of the whole tree, a close-up of the leaves and photos of the insects or damage (exit holes, tunnels, etc.) with something in the photo as a size reference (coin or ruler). Also send your name, address, phone number and reason for contacting us with the photos.

In cooperation with USDA-APHIS-PPQ, the Kansas Forest Service and K-State Research and Extension, KDA plans to host town hall meetings with Kansans as well as industry and local government stakeholder meetings to provide information about emerald ash borer and to ensure that all necessary facilities and individuals are equipped to treat and dispose of emerald ash borer infested material properly to prevent further spread of the pest.

To learn the most current information on the quarantine and meeting schedule, visit: www.ksda.gov/plant_protection/content/379.

To learn more about the emerald ash borer, visit: www.emeraldashborer.info.

Japanese Beetle (Popillia japonica) Update Greg Chrislip, State Entomologist

With the new Pest Freedom Standards, there is no tolerance for Japanese beetles. As such, plant nursery professionals should have a solid understanding of the Japanese beetle.

Currently 35 states, are considered infested with Japanese beetle. Some states have confirmed the beetle through surveys but are not considered infested. In Kansas, Japanese beetle is established with limited distribution.

Larvae which mature in June create an earthen cell. The prepupa voids its stomach contents and appears translucent. The pupa is then formed inside the split skin of the pupa. Newly emerged adults release a congregation pheromone to attract other emerging beetles. The females produce an additional pheromone.

Mating takes place on plants, with both male and female beetles mating several times. After several days the females leave the feeding site, and burrow into the soil typically 2- to 4-- inches deep. The female will lay between one and five scattered eggs before reemerging from the soil. The cycle of eating, mating, burrowing and egg laying is repeated until approximately 60 eggs are laid.

Egg development happens quickly under high temperatures. For example, development takes eight or nine days at (80° to 90 °F). If soil temperatures are cool (68 °F), the development can take up to 30 days. By autumn most grubs have reached third instar and begin to burrow deeper (up to eight inches). As the soil temperatures approach 60 °F in the spring, the grubs continue to develop. In late autumn, the grubs start burrowing deeper into the soil and remain inactive all winter.

In early spring they return to the turf where they continue to feed, until pupation in late spring.

For more information on the Japanese beetle visit the Spring Insect Report at:

 $\underline{www.ksda.gov/emailmarketer/display.php?List=27\&N=7}{40}$

Autumn Olive, A Weed to Watch For Scott S. Marsh, State Weeds Specialist

Plant health professionals be familiar with the state's designated and county optional noxious weeds, which can

be found online at:

www.ksda.gov/plant_protection/content/349. While it is important to recognize the species on the list, it is important to know that those are not the only weeds you should be keeping an eye out for. There are several other species that are not listed but are very invasive and could cause as much trouble as the noxious species.

One of these highly invasive species is a tree called autumn olive (*Elaeagnus umbellata*). It was originally introduced from Japan in 1830 as an ornamental and has since been planted throughout the Eastern United States as a wildlife food source and for erosion control. Because the fruit of the tree is so well liked by birds and other wildlife, it spreads quickly and will take root almost anywhere. It is also hard to kill and will resprout after being cut or burned down and transforms open fields into



dense thickets in which nothing else can grow.

Autumn olive trees grow up to 20 feet tall as a small tree or a large shrub. Its leaves are long and narrow and the undersides are

covered with silver to white scales which can give the tree a grayish green look from a distance. The flowers are small, tubular and pale yellow and appear in clumps along the twigs in May to June soon after the leaves have set. The fruit is a small, red berry and is produced in large quantities. The autumn olive is most often confused with a close relative and fellow invasive species, the Russian olive (*Elaeagnus angustifolia*). In Kansas, the Russian olive is widespread throughout the state while autumn olive has only been reported from Leavenworth and Wyandotte counties.

Autumn olive grows well in a variety of soils and soil conditions but does best in sunny areas such as disturbed areas, roadsides, pastures and fields. It has nitrogen-fixing root nodules which allow it to thrive in poor soils. Mature trees tolerate light shade, but produce more fruits in full sun, and seedlings may not do as well in the shade. It does not grow well on wet sites or in densely forested areas. It is drought tolerant and may invade grasslands and sparse woodlands.

Part of the reason for the autumn olive's being invasive is that they are hard to control. If the seedlings are young enough and the soil is moist and loose enough, you can pull them out of the ground in the early spring. If they are not pulled early, however, they will grow too large and be unable to pull all of the roots out.

If the trees are short enough, you can spray the leaves with products such as imazapyr or glyphosate during the growing season. You should be very



careful with this approach because the possibility for drifting pesticides is great and glyphosate products are nonselective which means they will kill almost everything they touch.

For trees that are too tall or for a method with more control, you can apply a triclopyr product to the bark of young trees during the dormant season. One of the more effective methods for trees of all sizes and ages is to cut the tree down and immediately apply a triclopyr, picloram or glyphosate product to the stump.

Closely following all rules and instructions with applications is critical and required by law. Because autumn olive is not a designated noxious weed in Kansas, you will not be able to use cost-share chemicals to treat it.

There are several other species that can be purchased and planted instead of autumn olive, such as Buffaloberry (*Shepherdia argentea*), Silky willow (*Salix Sericea*), Rosemary willow (*Salix elaegnos*), Redosier dogwood (Cornus Sericea) and Silverberry (Elaeagnus commutate), among others. Watch future Nursery Newsletters for more *Weeds to Watch for*.

New Kansas City Metro Area Staff

Jesse Ostrander is our new NE/KC Metro area staff member. His field office is in Lawrence and is originally from the Northwest Topeka area. He received his horticulture degree from Kansas State University in 2010. Jesse is currently finishing a master's degree in plant pathology and has worked for two years as a graduate research assistant (GRA) under Dr. Megan Kennelly, K-State Horticulture and Turf Extension Pathologist. While working as a GRA, Jesse had the opportunity to teach undergraduate students in a plant pathology lab course. In his free time, he enjoys canoeing and bicycling.

Trapping and Survey Programs

The national trapping survey for emerald ash borer in 2012 consisted of setting 309 traps in Kansas. Of these, 100 were set by the KDA and 209 were set by USDA-APHIS-PPQ. The state trapped Cherokee, Crawford, Douglas, Franklin, Graham, Harvey, Labette, Montgomery, Morris, Neosho, Norton, Osage, Osborne, Phillips, Pottawatomie, Riley, Rooks, Sedgwick, Smith,

Sumner, Wabaunsee and Wilson counties. The traps were put up in USDA pre-planned areas. If those areas were not suitable the traps were moved to campground sites. The traps were up from March until August. No emerald ash borer was found in the traps. For information on the emerald ash borer, visit: www.emeraldashborer.info

In 2012, an oak pest commodity survey was conducted. This detection survey gathered data to determine the status of exotic oak pests in Kansas. The eastern half of the state was surveyed at 100 sites. Next year (2013), the western half of the state will be surveyed with 50 sites being trapped. Kansas has a high population of oak in the eastern part of the state and other large areas throughout the state. The potential loss could be substantial to the ecosystem, agriculture, the lumber and nursery industry and communities if these pests are not detected early.

Trapping occurred for the rosy gypsy moth, false codling moth, summer fruit tortrix, green oak tortrix, variegated golden tortrix, Asian gypsy moth and European gypsy moth.

Early results are coming in for the oak pest survey. So far, none of the targeted pests have been identified.

Our traps are collecting a large number of moths and some butterflies. The following chart lists species and amount, we have currently identified in our traps.

Argyrotaenia velutiana (Tortricidae)	57
Gymnandrosoma punctidiscanum	106
(Tortricidae)	
Asterocampa celtis (hackberry	32
emperor butterfly)	
Tortricidae (unspecified)	7
Geometridae (unspecified)	7
Noctuidae (unspecified)	40
Gelechiidae (unspecified)	2
Choristoneura roseceana (Oblique	1552
banded leafroller) Tortricidae	
Lepidoptera (unspecified)	110
Total	1913

The brown marmorated stinkbug will feed on a wide variety of shade and fruit trees, vegetables and legumes. This pest could become a major agricultural pest in the United States and could cause crop loss and economic hardship in Kansas. Traps were placed at 25 sites during August and September. Two traps were placed at box stores and live plant dealers. No target pests were found.

Now that there is a trap and lure available for the walnut twig beetle, a trapping survey is occurring now and will continue in the spring of 2013. One hundred traps at 50

sites will be set at sawmills, recreation areas and areas with walnut trees.

Another national trapping survey is for the Khapra beetle. In September and October, two traps at 23 international stores in Manhattan, Topeka, Lawrence, Kansas City and Wichita were set.

We also released loosestrife root weevils into purple loosestrife in Doniphan and Johnson counties. This will occur for three years.

We always appreciate the live plant dealers who let us put traps on their property. This type of work is of great importance in protecting Kansas. Early detection will improve the odds of eradication and containment success if the pests are found.

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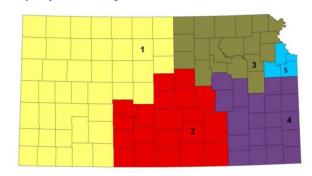
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